DOCUMENT RESUME

ED 239 175 CG 017 221

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TITLE Using the MBTI to Predict Career Development Program Usefulness.
PUB DATE 22 Mar 83
NOTE 16p.; Paper presented at the Annual Convention of the American Personnel and Guidance Association (Washington, DC, March 20-23, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adult Development; Career Counseling; *Career Development; *Career Guidance; Career Planning; Government Employees; *Participant Characteristics; *Personality Traits; Predictor Variables; *Program Effectiveness
IDENTIFIERS *Myers Briggs Type Indicator

ABSTRACT

Career development programs can benefit from knowledge of the needs and characteristics of their participants. To investigate whether certain types of individuals seek career development assistance more often than others, 279 self-selected white collar employees of a large, federal biomedical research company completed the Myers Briggs Type Indicator and participated in either individual or group career development activities (CDA) over a 3-year period. An analysis of the results showed that the "typical" CDA participant was a 36-year-old female who had completed at least 2 years of college, was employed in a support-level occupation, with a preference for attending group CDA's. The participants tended to have a sensing/judging temperament style, in addition to extraversion/introversion and thinking/feeling preferences. However, having one temperament style rather than another did not in itself drive individuals to seek career development activities. Having a temperament style which was non-representative of the organizational norm did influence participation in CDA's. Introverts represented 54 percent of all persons seeking assistance, over twice as many as would be predicted by their presence in the general population. The findings suggest that individuals having organizationally representative styles may have need for CDA services not currently available. (BL)

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ED239175

Using the MBTI to Predict Career Development Program Usefulness:

A Presentation to the
American Personnel and Guidance Association
Annual Convention
(Presentation #466)
Washington, D.C.
March 22, 1983

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CG 017221

ABSTRACT

The study, carried out during a three-year period at a large, federal biomedical research organization, investigated whether certain types, based on the Myers-Briggs Type Indicator, sought career development assistance more often than others. The study population consisted of 279 self-selected participants. The data appeared to indicate that having one type rather than another did not in itself drive individuals to seek career development activities (CDA's). However, having a type which was non-representative of organizational type, may have.

The data led to the conclusion that as long as organizational type was identified, the knowledge that non-representative types comprise the majority of CDA seekers will help CDA planners predict program usefulness; using type theory to structure programs for the majority or minority of potential CDA seekers.

The data also indicated that career development activity participants tended to be between the ages of 30 and 40 and had an educational level between high school and two years of college. In addition, all types tended to be attracted more to group CDA's.

Background and Methodology

In the past three years the large, federal biomedical research organization from which the study population was drawn operated a variety of employee-centered career development activities (CDA's). For purposes of this study, CDA's may be defined by and grouped into two basic modes: individual CDA (career counseling by appointment) and group CDA (a variety of career and life planning courses announced throughout the organization).

The Myers-Briggs Type Indicator (MBTI) was administered to all CDA participants over this period of three years, to assist in the career and life planning process. In aggregating CDA participant MBTI data with MBTI data from the overall organization, the researchers noticed what appeared to be a higher than theoretically acceptable proportion of introverts seeking individual CDA's; that is, more than the expected 25% of introverted participants occurred. This observation generated the idea that there could be type preferences for one mode of CDA over another. In order to systematically test this idea, two hypotheses were formulated:

1: Introverted CDA participants exceed their expected proportion of the general population of total participants seeking CDA's.

2: Introverts prefer individual CDA's to group CDA's.

Investigation of these two hypotheses was performed with the assistance of the SPSS FREQUENCIES and CROSSTABS subprograms. SPSS-generated totals, percentages, means, medians, modes, and ranges were applied to the investigation of the first hypothesis to ascertain basic demographic data about the population. The second hypothesis was tested using chi-square analysis to ascertain relationship between participant's MBTI-generated preferences and types, selected demographic data, and CDA modes.

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* Preferences refers to Introversion (I), Extraversion (E), Sensing (S), Intuition (N), Thinking (T), Feeling (F), Judging (J), and Perception (P).

Type refers to the 16 specific combinations of these preferences, in groups of four each.

Study Population and Demographic Data

The population employed for this study consisted of 279 self-selected adults working primarily in the "white-collar" occupations of a large, federal biomedical research organization. Self-selected means that all study participants voluntarily enrolled in a given CDA mode, that they, presumably, had a career or job-related motivation to do so, and that they all voluntarily completed the MBTI. The participating employees had no previous knowledge of the study, therefore precluding any participation in CDA's for other than personal motivations. The participants were not randomly or otherwise methodically selected to be representative of the organizational population. They do, however, represent the total organizational sub-population seeking Career Development assistance during the 3 years of data collection for the study. The derived data, therefore, should be construed to mean something only in relation to the study participants, and similar employed adult career assistance seekers. Implications beyond the study population and groups closely resembling them should be drawn with extreme caution.

Of the total study participants (N=279), 11 percent (N=30) were male and 89 percent (N=249) were female. The INDIVIDUAL CDA mode was selected by 28 percent (N=78) and the GROUP CDA mode was selected by 72 percent (N=201). The mean age of all CDA participants was 38 years. The median age of 36 and bimodel ages of 30 and 36 years fell into the same decade.

The educational level of CDA participants tended to be bimodel at completion of the high school diploma and achievement of the bachelor's degree. While the educational attainment of the total CDA participants ranged from 10th grade to the Ph.D., the mean and median educational levels occurred at completion of the second year of college.

The occupational areas from which CDA participants came were scientific occupations requiring the Ph.D. (2%); scientific occupations requiring professional-level education and experience but not requiring the Ph.D. (15%); professional-level but non-administrative occupations such as writers and editors (6%); professional-level administrators (12%); and support-level occupations such as grants technical assistants, administrative assistants, clerical and secretarial support, and laboratory support (58%).

These occupations are fairly representative of the "white-collar" classification jobs available in the organization. Of the remaining occupations, 1% (N=4) were "blue-collar" occupations* and 6% (N=16) were unspecified.

Use of the MBTI

The MBTI's useful descriptions of psychological preferences and types and its focus on normal rather than psychiatric populations, coupled with its excellent general understandability and its extensive research base (McCauly, 1981; Myers, 1962) have made it an invaluable keystone in career development activities carried out in the study organization. Also employed in interpreting the study data were Kiersey & Bates (1978, pp. 131-165) descriptions of the temperament styles**, which are based on the same psychological type theory employed by the MBTI.

The study organization has also used the MBTI organizationally in training and educational activities not connected to career development activities. Because of the variety of organizational components, levels, and occupations which provided MBTI scores, it was possible to apply the overall organizational data to comparisons used in this study.

Results and Discussion

The "typical" CDA participant, according to the data, was a 36 year old female who had completed at least two years of college, and was employed in a support-level occupation with a preference for attending group CDA's. Continuing in this "typical" vein based on means, the participants also tended to have an SJ temperament style, in addition to E/I and T/F preferences, [ISTJ (N=40), ESTJ (N=32), ISFJ (N=33) or ESFJ (N=23)]. Between them, the four types listed accounted for 46 percent of all participants. Table 1 lists the distribution of all preferences across CDA participants by gender. Tables 2, 3, and 4 list the percent distribution of preferences, types, and temperament styles across all CDA participants.

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* Since "blue-collar" classification job holders tended not to select themselves into CDA's, the data cannot reasonably be construed to this population. Since, however, many "blue-collar" occupations tend to attract action-oriented SP's (Kiersey, 1978, p. 158) it may be speculated that these individuals may be more likely to prefer some "action" over sitting through a CDA.

** Temperament styles refers to combinations of SJ, SP, NF, NT.

TABLE 1

PERCENT DISTRIBUTION OF PREFERENCES ACROSS CDA PARTICIPANTS BY GENDER

MALES			FEMALES		
TYPE	N	% OF TOTAL MALES	TYPE	N	% OF TOTAL FEMALES
E	10	33	E	118	47
S	15	50	S	150	60
T	23	76	T	115	46
J	24	80	J	163	65
--	--		--	--	
I	20	66	I	131	53
N	15	50	N	99	40
F	07	23	F	134	54
P	06	20	P	86	34

MALE N = 30

FEMALE N = 249

TABLE 2

PERCENT DISTRIBUTION OF PREFERENCES ACROSS ALL CDA PARTICIPANTS

TYPE	N	% OF TOTAL POPULATION
E	128	45.9
S	165	59.1
T	138	49.5
J	187	67.0
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I	151	54.1
N	114	40.9
F	141	50.5
P	92	33.0

POPULATION N = 279

TABLE 3

PERCENT* DISTRIBUTION OF TYPE ACROSS ALL CDA PARTICIPANTS

I S T J N = 40 14%	I S F J N = 23 12%	I N F J N = 12 4%	I N T J N = 18 6%
I S T P N = 7 3%	I S F P N = 15 5%	I N F P N = 17 6%	I N T P N = 10 4%
E S T P N = 5 2%	E S F P N = 10 4%	E N F P N = 17 6%	E N T P N = 10 4%
E S T J N = 32 11%	E S F J N = 23 8%	E N F J N = 15 5%	E N T J N = 15 5%

* Percentages expressed by total population. N=279
Due to rounding error percentages may not total 100.

TABLE 4

PERCENT DISTRIBUTION OF TEMPERAMENT STYLES ACROSS ALL CDA PARTICIPANTS

NF N = 61 22%	SP N = 37 13%
NT N = 53 19%	SJ N = 128 46%

Population N = 279

Introverts represented 54 percent of all persons seeking assistance; over twice as many would be predicted by their presence in the general population. Therefore, the first hypothesis was supported by the data.

The second hypothesis, that introverts prefer individual CDA's to group CDA's was not supported by the data. In performing the chi-square analysis, no evidence was found that introverts preferred individual to group CDA's. Since group CDA's were clearly preferred by the majority of participants, and since introverts were clearly in the majority of the study population, it is speculated that introverts probably enjoyed the option to interact or not as they pleased made possible by a group setting. They probably also enjoyed the "food for thought" and introspection generated by the group environment. This speculation seemed reasonable given the introvert's desire to internalize data before using it in an extraverted fashion, (Myers, 1980, pp. 53-56).

The data on the 279 self-selected participants in this study are not different than expected on several fronts. For instance, since group CDA's received far more advertising than individual CDA's it was not surprising that group activities appeared to be more popular.

The age-group mean, median, and mode of the participants are not really different than may be expected either. Sheehy's "deadline decade," (Sheehy, 1976, p. 30-31) the thirties, appeared to represent the age group most desiring help in making career decisions or changes. During the 30's decade people also begin to reassess their career mobility and advancement in light of education. A high school diploma or a college degree may appear to them to be insufficient for the competitiveness of the job market; causing reassessment of current educational level. Eighty-six percent of all CDA participants had a high school diploma and some college. Constrained mobility to higher paying or more professional positions because of lack of education, therefore, appeared to motivate individuals to participate in CDA's. Also, fifty-eight percent of all participants were in constrained mobility positions, such as clerical, technical, or lower-level administrative positions and had reached their current job's promotional potential. This also served to motivate seeking career development assistance.

The findings of this study replicate the findings of Wilson in an unpublished dissertation study (1979) investigating women clerical workers seeking formal career change. It found that women clerical workers applying for formal career change had a mean age of 36 years and a minimum of 1 1/2 years of education beyond high school and that they scored significantly higher on aspiration as measured by the Hall Occupational Orientation Inventory. This somewhat serendipitous corroboration gives strong support to the adult developmental theory of Sheehy that the 30's are the "deadline" generation, at least for women, and significant career decisions are generated and dealt with by women in this time period.

Also characteristic of both studies is the preference for a formal rather than informal process for career decision making. In the former study the subjects were applicants to a formal structured career change program, in the latter, the strong favorite of the "typical" woman was for a structured group process rather than individual counseling. This preference for a structured process to be pursued with urgency is more easily understood in light of their large representation in the SJ temperament style. According to Keirsey & Bates (1978, pp. 131-165) the SJ temperament style has a strong predilection toward membership in groups and is very much interested in finding out what the "rules are" and "what one is supposed to do." Once the "rules" are ascertained they diligently apply themselves to follow them. The format of a formal career decision making process offers the most overt and attractive approach for the SJ to meet their needs for membership and structure.

Another implication of the data that was somewhat different than expected was the fit of types between organizational-norm types and participants electing CDA participation. It is this fit of types which had utility in predicting career development program usefulness.

Participants with types or Kiersey-Bates' temperament styles which were not representative of the "organizational-norm temperament style" tended to seek CDA participation more frequently than those representing the organizational norm temperament style (ONTS). According to the reasoning used by Kiersey, the biomedical research organization to which participants' belonged would tend to be attractive to NT's. Observations of organizational type have shown NT(J) to be highly representative of the ONTS. Forty-six percent of all CDA participants proved to be SJ, 22% were NF, and 13% were SP, or 81% of total CDA participants were not representative of the ONTS. Of the 19% which were NT, data described later will show these individuals to be in occupations non-representative of their temperament styles' most often selected occupations. For CDA participants in this study a statistically significant (.01 level) and inverse relationship between current occupation and temperament style (and type) was found using chi-square analysis.

Participants in non-"temperament-style match" occupations also tended to seek CDA's more often than others. By Kiersey's reasoning "classic" NT's like to sequence and experiment, thus, they are often scientists. SJ's like to adjudicate, enculturate and maintain, thus they are often administrators. NF's are good in interpretation and communication, thus, they are often found to be writers. SP's tend to be action-oriented, and are, therefore, more likely to engage in a career development action than listen to someone else talk about it. Of all CDA participants, however, the classic NT's tended to be in NF or SJ occupations, the professional NF's tended to be in "classic" NT or SJ occupations and the SJ's were spread throughout the three other styles, only 1/3 of them actually occurring in the "classic" SJ occupations. SP's represented only 13% of the total participant population but these also were scattered in occupations usually attractive to other styles.

Support staff study participants were an exception to these inversions of style and classic occupation, 61% of them occurring in their expected SJ style. Support staff belong to occupational series which quickly reach their highest pay potential in the orgnaization. This pay potential is low compared to other occupations and probably a cause to participate in CDA's. Their reason for CDA participation cannot be solely found in temperament-style and occupation mismatches but may also be found in practical monetary considerations.

Predicting CDA Usefulness

Several implications for prediction of CDA usefulness may be derived from the data. More types non representative of the organizational norm temperament style (ONTS) attended CDA's, thus indicating that either the announcements for the CDA's were unknowingly written to attract these types, or organizationally representative types had very little need for CDA's. Two implications follow; one, that all CDA announcements should be prepared to attract the four temperament styles to test whether indeed more ONTS tend to apply; second individuals having the organizationally representative styles may have need for CDA services not currently available. The CDA's themselves should therefore be examined for applicability to the four temperament styles.

In as much as non-representative organizational temperament styles (NROTS) occur in every organization, it may be expected that these individuals will be seeking a CDA at some point in their employment. These NROTS could be attracted to the CDA's by writing announcements according to the type or temperaments.

CDA's structured for NROTS certainly have large implications for use of the MBTI organizationally, both to identify an ORTS and in facilitating a productive organizational culture.

CDA's structured for NROTS, then, appear to be an indicator of career development program usefulness. These NROTS structured programs, according to the data, will be optimized in usefulness when they are also structured to attract individuals in their 30's, female, with some college, and in support-level occupations.

The data thus also indicate a use of type or temperament styles to design CDA content, since the ONTS tended not to seek assistance, thus leaving mostly NROTS to seek CDA's. They don't only need assistance in career change or choice, they sometimes also need assistance in learning to deal with work environments and people of opposite preferences or temperament styles. Often change in job tasks and environment are not possibilities, but facilitating the positive use of the existing environment is. The MBTI is a useful tool for such facilitation.

Summary

The data appear to indicate that having one preference over the other does not drive individuals to participate in CDA's in itself. However, having a type non-representative of the organizational norm, may. CDA's appear in addition to attract these NROTS more frequently when they are between the ages of 30 and 40 and have an educational level between high school and two years of college. In addition, all types seem to be attracted more to group activities, although, to meet individual needs individual CDA's should also be available. The MBTI may, based on this study data, be one useful tool in determining CDA's for the organizationl as long as the organizational character is also identifiable by type or temperament style.

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